

AD-A249 875



92-12847



Unclassified

SECURITY CLASSIFICATION OF THIS PAGE

Form Approved
OMB No. 0704-0188

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION Unclassified		1b. RESTRICTIVE MARKINGS			
2a. SECURITY CLASSIFICATION AUTHORITY		3. DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release distribution unlimited			
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE					
4. PERFORMING ORGANIZATION REPORT NUMBER(S)		5. MONITORING ORGANIZATION REPORT NUMBER(S)			
6a. NAME OF PERFORMING ORGANIZATION U.S. Army War College	6b. OFFICE SYMBOL (if applicable)	7a. NAME OF MONITORING ORGANIZATION			
6c. ADDRESS (City, State, and ZIP Code) Carlisle Barracks, PA 17013-5050		7b. ADDRESS (City, State, and ZIP Code)			
8a. NAME OF FUNDING/SPONSORING ORGANIZATION	8b. OFFICE SYMBOL (if applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER			
8c. ADDRESS (City, State, and ZIP Code)		10. SOURCE OF FUNDING NUMBERS			
		PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.
11. TITLE (Include Security Classification) Communications in the Reserve Component					
12. PERSONAL AUTHOR(S) Lieutenant Colonel Richard L. Olson					
13a. TYPE OF REPORT Individual	13b. TIME COVERED FROM _____ TO _____		14. DATE OF REPORT (Year, Month, Day) 15 April 1992	15. PAGE COUNT 36	
16. SUPPLEMENTARY NOTATION					
17. COSATI CODES		18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)			
FIELD	GROUP	SUB-GROUP			
19. ABSTRACT (Continue on reverse if necessary and identify by block number) Signal units providing Command and Control Communications (C3) on today's fluid battlefield require extremely well trained and talented communicators, automators and engineers. As budget constraints and reduced threats cause reduction in our Active Component forces, more reliance for critical C3 will be placed on the Army's Reserve Components. The study examines the Total Force concept and its impact on the US Army Signal Corps. The training and deployment of Reserve Component signal units is discussed in view of lessons learned during Desert Shield/Storm. Finally, realistic alternatives and recommendations considering the inevitable force reductions are presented.					
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION		
22a. NAME OF RESPONSIBLE INDIVIDUAL PATRICK T. THORNTON			22b. TELEPHONE (Include Area Code) 717 245-3721 22c. OFFICE SYMBOL AWCAC		

USAWC MILITARY STUDIES PROGRAM PAPER

The views expressed in this paper are those of the author and do not necessarily reflect the views of the Department of Defense or any of its agencies. This document may not be released for open publication until it has been cleared by the appropriate military service or government agency.

COMMUNICATIONS IN THE RESERVE COMPONENT

AN INDIVIDUAL STUDY PROJECT

by

Lieutenant Colonel Richard L. Olson
United States Army

Colonel Patrick T. Thornton
Project Adviser

U.S. Army War College
Carlisle Barracks, Pennsylvania 17013

Accesion For	
NTIS	CRA&I
DTIC	TAB
Unannounced	
Justification	
By _____	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

ABSTRACT

AUTHOR: Richard L. Olson, LTC, USA

TITLE: Communications in the Reserve Component

FORMAT: Individual Study Project

DATE: 15 April 1992 PAGES: 36 CLASSIFICATION: Unclass

Signal units providing Command and Control Communications (C3) on today's fluid battlefield require extremely well trained and talented communicators, automators and engineers. As budget constraints and reduced threats cause reductions in our Active Component forces, more reliance for critical C3 will be placed on the Army's Reserve Components. The study examines the Total Force concept and its impact on the US Army Signal Corps. The training and deployment of Reserve Component signal units is discussed in view of lessons learned during Desert Shield/Storm. Finally, realistic alternatives and recommendations considering the inevitable force reductions are presented.

TABLE OF CONTENTS

	Page
ABSTRACT	ii
LIST OF ILLUSTRATIONS	iv
INTRODUCTION	1
TOTAL FORCE POLICY	2
PAST MOBILIZATION LESSONS	3
TURNING THE RC FORCES AROUND	3
CURRENT AC/RC RIVALRY	6
DOWNSIZING	7
DOWNSIZING IMPACT ON THE US ARMY SIGNAL CORPS	9
ECHELON ABOVE CORPS COMMUNICATIONS	9
ECHELON CORPS AND BELOW COMMUNICATIONS	11
THE RC SIGNAL BATTALION CHALLENGE	11
212TH SIGNAL BATTALION DESERT STORM MOBILIZATION EXPERIENCES	12
212TH SIGNAL BATTALION MOBILIZATION LESSONS LEARNED	14
THE RC SIGNAL BRIGADE CHALLENGE	16
THE RC THEATER SIGNAL COMMAND CHALLENGES	17
SIGNAL BATTALION ALTERNATIVES/RECOMMENDATIONS	18
SIGNAL BRIGADE ALTERNATIVES/RECOMMENDATIONS	22
THEATER SIGNAL COMMAND ALTERNATIVES/RECOMMENDATIONS	23
CONCLUSION	24
ENDNOTES	33
BIBLIOGRAPHY	35

LIST OF ILLUSTRATIONS

	Page
Figure 1 1991 Total Army Force Mix	27
Figure 2 Base Force 1995	28
Figure 3 Signal Corps Echelon Above Corps	29
Figure 4 Signal Corps Echelon Corps and Below	30
Figure 5 Desert Storm Communications Structure	31
Figure 6 Corps Signal Brigade TAA-99 Base Force	32

INTRODUCTION

In January 1973, the Nixon Administration ended the draft and embarked on a path of heavy reliance on Army Reserve Components (RC) as part of a volunteer force. This profound change caused changes in the missions and responsibilities assigned to the RC. Traditionally, the RC were held in reserve and allotted time to mobilize and train before deployment. However, today under Total Force Policy, the RC elements are expected to deploy along with the active forces - some within days.

Since inception of the RC affiliation program in 1974, many active component leaders have had doubts about how well the RC signal units would perform if called upon to mobilize, deploy and fight. Experience up until Desert Shield/Storm was limited to conducting evaluations and providing assistance to CAPSTONE signal battalions. Although, most of these experiences were positive, reservations as to whether placing critical Command and Control communications capability in the RC is prudent still exist.

The first portion of the study examines the Total Force Policy and discusses its genesis and successes which significantly contributed to the total defeat of the Iraqi Army in Desert Storm. Next, a look at the current US Army downsizing plan and how it effects the US Army Signal Corps, both at the Echelon Above Corps (EAC) and Echelon Corps and Below (ECB) level is presented. This discussion is then followed by an analysis of the challenges faced by the RC signal units. Based on this

analysis and information alternatives, recommendations and conclusions are presented.

TOTAL FORCE POLICY

The Total Force Policy concept has its genesis in 1970 when our nation began to disengage the military from Vietnam and to design a post-Vietnam force. Up until this time, the RC was viewed as second-string or reinforcement to the Active Component (AC), and as such, the RC units of that time were a hollow force with severe problems. RC units had been stripped of equipment needed for the AC and worse yet, had become a haven for draft dodgers, evading Vietnam duty. By all historical accounts the RC, in 1970, was totally ineffective and unable to go to war.¹

The one pivotal event that caused a resurgence of the RC was the end to the draft in January 1973 and the shift to a volunteer force based on a Total Force concept. In addition, the Total Force concept has provided forces at only 40 to 70 percent of the cost of the AC.² This cost advantage coupled with a strong lobby by the National Guard Association and the Reserve Officers Association has helped make Congress a receptive audience and supporter of the Total Force Policy. Finally, the Total Force Policy can be attributed to the Army's leadership in its quest to avoid another Vietnam. The idea was to reestablish the concept of the citizen-soldier as a bridge between the AC and the American people, thus reducing the chance of another Vietnam where the military lost its political support and eventually the war.³

By 1986, thanks to President Reagan's "rearming America" policy, the Army's reliance on the RC had reached a critical point.

The Total Force Concept of the early 1970's was a reality in 1986, so much so that contingency plans to counter aggression in both hemispheres cannot be effectively executed without committing National Guard and Reserve forces in the same time frame as active forces.

4

Indeed, this was exactly the case when Iraq invaded Kuwait in August 1990. As Figure 1 (page 27) shows, by this time the RC provided more than half the strength of the Total Army.⁵

5

PAST MOBILIZATION LESSONS

Our nation's experience with mobilizing its RC for World War II, the Korean Conflict and the Berlin Crisis were disappointing.⁶ Consequently the RC units were federalized in very limited numbers during the Vietnam War primarily because of the loss of confidence in their readiness based on their past performances.

Whatever beneficial purposes have been served by the call-ups of Army reserve units in the past, they have been accompanied by numerous problems, including widespread confusion about recall priorities, general unpreparedness of mobilized units, prolonged delays between the mobilization of Guard and Reserve units and their deployments, frequent instances of unwillingness to serve, and in some cases the ineffective use of those units.

7

TURNING THE RC AROUND

The commitment of our national, AC and RC leaders to the Total Force Policy has turned around the RC. With the possible

exception of the three National Guard roundout brigades mobilized during Desert Shield/Storm, the RC contribution during Desert Shield/Storm can only be termed highly successful.

For example, when the ground war commenced in Southwest Asia (SWA), the US Army Reserves (USAR) were approximately 40,000 strong and were providing the following Total Army capability:⁸

Type	% of Total Army Capability
Civil Affairs	94
Enemy Prisoner of War Handling	89
AG Postal	69
Petroleum Handling	65
Psychological Operations	63
Water Handling	59
Medical	39
Chemical	33
Transportation	31
Military Police	25
Maintenance	21
Engineers	17

General Colin Powell, Chairman of the Joint Chiefs of Staff, in testimony to the Senate Armed Services Committee on 3 December 1990 described the RC performance as follows:

The success of the Guard and Reserve participation in Desert Shield cannot be overemphasized. Their participation has been a significant factor in affording us flexibility and balance, and reinforces the policies and decision made over the last 10 years to strengthen the Total Force concept.⁹

The Army National Guard federalized 398 units and 62,411 soldiers from 48 states for Operation Desert Storm. Of these, 297 units and 37,848 soldiers were validated and deployed to SWA, 16 units and 3,378 soldiers to Europe, and 57 units and 5,993 soldiers remained stateside for support. Sixty ARNG Colonel- and

Lieutenant Colonel-level commands were deployed to SWA in an average of 35 days after federalization. All ARNG units arrived at their respective mobilization stations within 72 hours and over 97% of them were at or above the deployability criteria. ¹⁰

Brigadier Hammerbeck, Commander, 4th Armored Brigade (UK) had this to say about the support he received from the 142d Field Artillery Brigade, Arkansas NG.

To support this (operation) I arranged with CO 2 Field Regiment RA for us to have a large and impressive artillery bombardment. I was given effectively two brigades of arty. From the US Army, we got the National Guard 142d Artillery Brigade with two batteries each of MLRS and M110. By golly, they were good.

I was able to see the bombardment laid down in front of me. It was a sight I shall remember the rest of my days. To my left MLRS from 39 Heavy were firing and those of the 142d were firing over my head. For 45 minutes, there was what I can only describe as a running roar as MLRS sub-munitions exploded in a carpet right the way across the full depth of the enemy position.

Talking to an Iraqi artillery commander after the war, he told me that 90% of his crews on that position had been killed or wounded when this initial bombardment had gone in. He lost more than 70 guns in the space of an hour, which was a pretty major achievement.

¹¹
Clearly great progress has been made since the early 1970's as supported by the superb contribution RC forces made to Operation Desert Shield/Storm. Despite the "hollow-Army" low in 1970, Congress and the military have improved the capabilities and readiness of the RC, particularly in the areas of equipping and training the RC forces. Today it is policy for the Army to field its new equipment to the RC trace units at the same time as the AC units of the corps or division. Additionally, unit and individual training has significantly improved as a result of

increased allocations of Army school training seats to the RC, the Affiliation Program, the CAPSTONE Program, the Overseas Deployment Training Program, and the National Training Center
12 Rotation Program.

Consequently, today's Reserve Components are without a doubt the best in our history. By nearly every account of their performance during Desert Shield/Storm, the RC successfully mobilized, deployed and fought in a superb manner. Moreover, without their contributions, particularly in the Combat Support (CS) and Combat Service Support (CSS) areas, we could not have won so quickly and convincingly. The RC soldiers, 140,000 strong from 897 RC units or cells, can be extremely proud of what they accomplished during Desert Shield/Storm. In addition, their deep involvement led to the US political will to see Operation Desert Storm through. The Total Army concept can only be termed a
13 success during Desert Shield/Storm.

CURRENT AC/RC RIVALRY

Nevertheless, problems exist between the AC/RC. The Army's decision during Desert Storm to not deploy the three roundout brigades and to not mobilize the Theater Signal Command and the Theater Army Area Command affiliated with CENTCOM has tended to
14 escalate traditional rivalries between the AC and RC. Furthermore, Congress has recently strengthened the Chief of Army Reserves, by giving him command authority of the Army Reserve forces which, in effect, involves him directly in resourcing and training the USAR. And perhaps most perplexing to the AC

leadership is that Congress has shown a willingness to question proposed RC reduction, so much so that this year Congress only agreed to trim the RC by 37,500 positions, while the Administration had sought a 105,000 position reduction.¹⁵

Furthermore, in a survey of the US Army War College class, 1992, several negative attitudes toward the RC by their AC counterparts emerged.¹⁶ When asked to what extent senior RC commanders are treated as equals by their AC counterparts; 30.2% responded sometimes, 22.3% responded seldom, and 2.9% responded never. When asked to what extent did the class members feel the RC units may be relied upon in combat; 38.4% responded sometimes and 4.3% said seldom. And finally, when asked to what extent did the class members feel Active Army officers treat their RC counterparts as equals; 38.2% said sometimes, 16.2% said seldom, and 2.2% said never.

These results further indicate that there is a split between the AC and RC. What is alarming is that over 55% of the AC officers surveyed believe that senior and mid-level RC leaders are not treated as equals by AC counterparts, yet the Total Force Policy has been with us since 1973.

DOWNSIZING

For over forty years, the US strategy of reliance on forward deployed forces has served as the bedrock of American foreign policy and the nation's military strategy. However, the fall of the Berlin Wall in November 1989 and the subsequent total

collapse of the Soviet Union in 1991 have caused the US to adopt a cost effective power projection strategy.

Power projection places primary reliance on projecting military power from the United States, rather than depending upon some 375 overseas bases and nearly a half-million forward-deployed US forces. It calls for forces capable of quickly moving anywhere in the world where a regional crisis ¹⁷ threatens an ally or American vital interests.

In the wake of the reduced Eastern European threat, the Pentagon has endeavored to base our minimum US Army AC warfighting strength for 1995 on a scenario of regional conflicts. The concept divides the world into two Major Regional Conflict (MRC) areas - East and West (MRC-E and MRC-W), and into Lesser Regional Conflict (LRC) areas, such as South or Central America. From this has evolved the requirement for 12 AC divisions to fight two MRC concurrently, 5 AC divisions to each MRC and the remaining 2 AC Divisions to remain in Europe. Further, should a major war erupt, 8 RC divisions will be required for a total of 20 divisions in our Total Army base force in 1995. Figure 2 (page 28) breaks out the total force for 1995 ¹⁸ and illustrates the AC/RC mix. As can be seen, 5 of the AC divisions; 2 in I Corps, 2 in XVIII Corps and 1 in III Corps, will have roundout combat brigades and significant Non-divisional Combat Increments (NDCI) and Tactical Support Increments (TSI) in the RC. Six of the divisions will be totally RC and the 2 cadre divisions will be manned full-time by an AC cadre and filled, upon mobilization, with RC soldiers.

DOWNSIZING IMPACT ON THE US ARMY SIGNAL CORPS

The shift to more reliance for CS from the RC means increasingly more Signal Corps communications capability will be placed in the RC. It is a political imperative that, whether supported or not by the signal community, must be faced and dealt with intelligently. Accordingly, the US Army Signal Center has proposed and received approval, through the Total Army Assessment (TAA) -99 process, for the 1995 signal forces found at Figure 3 (page 29)- Echelon Above Corps (EAC) and Figure 4 (page 30)-
¹⁹
Echelon Corps and Below (ECB).

ECHELON ABOVE CORPS COMMUNICATIONS

As Figure 3 indicates TAA-99 calls for 3 Theater Signal Commands (TSC), 1 in the AC and 2 in the RC. Their mission is to provide planning, network and system control, and frequency and COMSEC management from the Corps rear area into the strategic communications system. As was the case during Desert Shield/Storm, the traditional mission could become more complicated and technically more demanding when coalition forces with diverse communications equipment must integrate into a network to support joint and combined operations over long distances. Therefore, it is imperative that the officers and NCOs in the technical control and engineering sections of the TSC be extremely proficient.

During Desert Shield/Storm the decision was made not to federalize the RC TSC which was affiliated with CENTCOM. This

decision greatly limited the CENTCOM Commander's ability to properly employ the tactical network in the early stages of Desert Shield.²⁰ Instead, an ad hoc group of active duty soldiers and equipment was pulled together to form a provisional TSC. Although this option worked, thanks to the fact that 5 months lapsed before the ground war started, it certainly has caused extreme friction between the AC and the RC.²¹ Perhaps more important, it still leaves open the question as to whether the RC TSC could have performed its mission during Desert Shield/Storm. In hindsight, given 5 months to train, there is little doubt that the RC TSC could have performed its mission as it had done during its mission certification approval process on Bright Star '87 and on numerous other AT evaluations/deployments.

At the EAC signal brigade level, 3 brigades will remain AC while 2 will be provided by the RC. The impact of this reliance on the RC is similar to that just discussed at the TSC level. The challenge for these brigades is to provide communications network planning and technical control as part of a theater communications network. Moreover, they will provide command and control, logistics, maintenance and personnel support for their organic battalions which may be AC or RC.

The remaining EAC signal battalions and companies are 50% RC units. The result is a heavy dependence on the RC for very vital communications links which tie the fighting Corps to their higher headquarters and the ConUS sustaining base. These units currently have a mix of different generations of signal

equipment, but will be totally modernized with digital equipment.
²²
by FY 96.

ECHELON CORPS AND BELOW COMMUNICATIONS

Figure 4 illustrates the AC/RC signal brigade and battalion mix at the ECB. The fielding plan for the Army's new digital Mobile Subscriber Equipment (MSE) to these units will be complete by 4th quarter, FY 93. Also, the reduction in force structure has allowed the fielding of 6 MSE nodes, as opposed to the original 4 MSE nodes, to all AC heavy divisions and to 3 of the 5 RC heavy divisions, thereby providing these divisions much more maneuver flexibility. This frees the corps signal brigade's MSE nodes that previously were needed to "thicken" the armor division area of operation.
²³

Again, as at the EAC, over 50% of the total signal corps assets at the corps level are in the RC. As a result, it is imperative that the RC signal brigade and battalions affiliated with a deploying corps be ready to mobilize and deploy on short notice.

THE RC SIGNAL BATTALION CHALLENGE

Given that more than 50% of the Army's communications capability will reside in the RC, there is little doubt that any Major Regional Conflict (MRC) we are forced to enter will require substantial reliance on RC signal units. As Figure 5 (page 31) indicates, 15 AC signal battalions were required during Desert

Storm. This figure takes on significance when you consider that by 1995 only 15 AC signal battalions will remain in the force. Consequently, it is very unlikely that the communications requirement for a MRC such as Desert Storm could be met by AC signal units alone.

The primary risks are that RC signal units will be unable to meet short deployment times and that their readiness posture would be such that extensive time and effort would be needed to get them ready before deployment. The question is whether a reserve signal unit with highly technical equipment, requiring extremely technically talented leaders and operators, can be trained in 39 days a year to deploy and perform its mission on short notice. This is precisely what we are asking them to do.

212TH SIGNAL BATTALION DESERT STORM MOBILIZATION EXPERIENCE

Again, Desert Shield/Storm provides some experience that may help answer the question. On 25 January 1991, the 212th Corps Area MSE Signal Battalion, Arkansas Army National Guard, Little Rock, Arkansas, was alerted to deploy for Desert Shield. The battalion arrived at Fort Hood, Texas, on 28 January 1991. As a CAPSTONE unit to III Corps, this battalion had been fielded MSE at Fort Hood in July 1989 along with the other 3d Signal Brigade MSE Area Signal Battalions. It had conducted some training at home station and then deployed three companies back to Fort Hood in April 1990 for exercise Road Runner 1990 conducted in West Texas. In addition, it had also deployed one area signal company

to support a maneuver brigade AT at Fort Chaffee, Arkansas, in July 1990. At both Fort Hood and Fort Chaffee the companies were evaluated and given 1-R ratings by elements of the 3d Signal Brigade. Despite the fact that the Node Center Switches of the MSE system are quite technically advanced, the four companies evaluated were found to be able to perform their primary communications mission. What the unit did lack was the ability to quickly troubleshoot and solve switching network problems, which only comes with more experience. But in all fairness to the 212th, many of the network switching problems at that time were software failures and no fault of the 212th Node Center operators.

Upon their arrival at Fort Hood, 28 January 1991, the 212th was given 10 days for RC mobilization processing, weapons qualification training and common task training. The Battalion was then turned over to the 3d Signal Brigade for assistance in training prior to deployment to Saudi Arabia.

Their first week of signal training was close-in crew drill training and certification for their Small Extension Switchboards, Radios and Radio Access Units to ARTEP standards. Simultaneously, their Node Center Switches and Large Extension Switchboard operators conducted classroom and network training in garrison. In week two they deployed for one week of 24 hour-a-day, close-in collective training on installation, operation and maintenance of a 6 MSE Node Center Switchboard and Large Extension Switchboard network. In week three they were

again required to install a 6-node network and to jump all their nodes twice, once at night and once in daylight, to ARTEP standards. At the conclusion of the jumps, the battalion deployed back to garrison for a 72 hour standdown. Finally, during week four, they deployed back to the field for an ARTEP evaluation for validation. The final analysis by the 3d Signal Brigade at the end of 6 weeks at Fort Hood was that the 212th Signal Battalion had done exceptionally well, and they were validated by III Corps as ready to deploy to Saudi Arabia. To their great consternation, however, they were not needed, and ²⁴ they redeployed to their home station in March 1991.

212TH SIGNAL BATTALION MOBILIZATION LESSONS LEARNED

From the 212th Signal Battalion mobilization experience came several lessons which can be applied to most RC signal battalions. ²⁵ The first is that RC signal battalions will need 4 - 6 weeks in which to conduct post-mobilization training. Accordingly, it is critical to make the decision to mobilize early in order to provide ample training time, particularly in the case of a RC signal battalion affiliated to the Contingency Corps. Most of this training will be conducted by the RC battalion, but AC soldiers from the CAPSTONE brigade will be needed to provide assistance and evaluation. Furthermore, this training time must be considered and planned for when requesting sealift or airlift for deployment. Second, it is essential to know what the RC signal battalion training strengths and weaknesses are so that critical training time is not lost.

Third, RC signal battalions, once notified to mobilize, can be at their mobilization stations within 48 to 72 hours. And finally, that the CAPSTONE signal headquarters must be deeply committed and give priority to making the Total Force Policy work. If the RC signal battalion has been fully integrated into the AC signal brigade, chances are readiness will be high and less post-mobilization training will be required.

The biggest challenge to RC signal battalions will be in the Contingency Corps where time will be compressed since this Corps will probably be the first to deploy. But even in the Contingency Corps, the RC signal battalion can meet the challenge provided the decision to mobilize them is made early. If the decision had been made by 30 August to mobilize the 35th Signal Brigade RC CAPSTONE units, there would have been 6 weeks available for post-mobilization training.²⁶ Since the 426th Signal Battalion (an active Corps battalion) remained at Fort Bragg until mid-to-late October 1990, they could have provided assistance and evaluation while the RC signal battalion conducted post-mobilization training. In fact, it is likely that an RC signal battalion will have more than 6 weeks, since sealift and airlift may not be available for their immediate deployment.

The assumption that crew drills and some form of collective signal training is needed prior to deployment for both RC ECB and EAC battalions is also based on the idea that 39 days of RC annual training is not sufficient to provide a fully combat capable signal battalion. For one thing, the technical knowledge

and skills needed to operate and maintain a highly technical communications network are extremely perishable. Further aggravating this situation is the fact that it is next to impossible to train as a battalion at home station because of the lack of training areas in most states and the great dispersion of the companies across the wide area of a state. Throw into the equation personnel turnover and state directed training, and the result is reduced time available for collective battalion training. A case in point is that the 212th Signal Battalion was unable to train as a complete battalion prior to their mobilization. As a result, many of the Radio, Small Extension Switchboard and Radio Access Unit teams had not trained together since their July 1989 MSE fielding.²⁷

THE RC SIGNAL BRIGADE CHALLENGE

The challenge to the RC signal brigades at both EAC and ECB is a difficult one. Figures 3 and 4 show that by 1995 four signal brigades will be in the RC, three at EAC and one at ECB. The signal brigade mission requires extremely talented systems engineers and leaders to provide technical control, and command and control of their assigned AC and RC battalions. Moreover, these brigades are expected to easily integrate into a theater communications network.

Although these brigades in most cases can expect to be late deployers, their real challenge lies in maintaining a nucleus of well-trained signal soldiers in the S3 technical control

section. Further, they must insure maximum integration and readiness of their assigned AC and RC signal battalions.

Worthy of particular note is the I Corps RC Signal Brigade. This brigade has the same general missions as the EAC signal brigade discussed above. But what sets it apart is its organization of one AC and three RC battalions. Clearly, this presents a tough training challenge in that collective training will be extremely difficult to accomplish because of the great dispersion of the battalions over a 3 or 4 state area. Mix into the equation only 39 days of Annual Training and personnel turnover, and the challenge then becomes monumental.

THE RC THEATER SIGNAL COMMAND CHALLENGES

As Figure 3 indicates, TAA-99 calls for one AC Theater Signal Command (TSC) and two RC TSCs. The TSC mission is extremely complex and requires extremely talented communicators, automators and engineers to plan, engineer and provide technical control of the Ground Component Commander's communications network in a theater of war. It is normally commanded by a Major General who works directly for the Ground Component Commander for the theater. Moreover, the TSC could very well find that it must deploy within 30 days of an outbreak of a major conflict.

The most serious problem facing this organization is maintaining a quickly deployable nucleus of officers and NCOs who have the technical expertise necessary to manage a network made up of different generations of equipment in a joint or combined

operation. Furthermore, the challenges increase when a coalition force is formed, such as that in Desert Storm, and their communications network must be integrated into the theater communications network. Clearly, the situation just discussed is a tall order for a TSC which trains 39 days a year. Moreover, the RC TSC is expected to provide technical control over AC and RC EAC signal brigades, which can hinder a smooth operation if mutual respect and cooperation are lacking in these relationships.

SIGNAL BATTALION ALTERNATIVES/RECOMMENDATIONS

The following discussion applies in particular to the Contingency Corps ECB RC signal battalions, since they will be the first to deploy on the shortest notice to a theater of war. Other follow-on ECB and EAC RC signal battalions, if alerted and mobilized early, should be afforded time to conduct at least 6 weeks of post-mobilization signal training while they wait for sealift to become available for movement.

The first alternative is to make the 35th Signal Brigade of the Contingency Corps totally AC. This alternative would provide the 35th Signal Brigade with a quick deployment capability in the AC with which to support the XVIIIth Corps. The major drawback to this option is the question as to who will be the bill payer. As figure 6 (page 32) indicates, virtually every corps in the TAA-99 force has been cut to essential signal assets with nothing to spare. Therefore, any effort to redistribute corps signal

assets would meet severe resistance. Moreover, such a practice would fly in the face of what the Total Force Policy is all about. It simply will not wash with the Congress or Army
28 leadership.

The second alternative is to convert an AC EAC battalion to an AC ECB battalion and place it in the 35th Signal Brigade. This would configure the brigade with three AC area battalions and one RC support battalion. It also would mean that the AC EAC battalion would be replaced by an RC signal battalion.

This option is relatively easy and inexpensive to accomplish because the XVIIIth Corps presently has an EAC signal battalion stationed at Fort Bragg and under command and control of the 35th Signal Brigade. It would require converting the EAC battalion to an MSE area battalion and moving the EAC mission to an RC signal battalion. Since no force structure is lost and equipment is available for the conversion, this option should be acceptable to the Army leadership. Additionally, a current Information Systems Command initiative, the Civil Reserve Information Service (CRIS)
29 Program, may reduce the EAC signal requirement. This program, if adopted, would operate similarly to the Military Airlift Command's Civil Reserve Air Fleet Program and could reduce EAC tactical signal requirements by providing a portion of the sustaining base communications connectivity to, and within, the theater.

The last alternative is to leave the 35th Signal Brigade as it is configured, but to increase the deployability and readiness

of its CAPSTONE RC MSE signal battalions. This alternative is workable provided the AC supports the Total Force Policy and decisions are timely to mobilize the CAPSTONE units in case of war. Further, the CAPSTONE headquarters must fully integrate their RC battalions in order to increase cohesion and readiness.

Realistically, the best option is the combination of options two and three. The concept would be to convert the AC EAC signal battalion at Fort Bragg to an AC ECB and to fill the EAC requirement with an RC signal battalion. Simultaneously, an effort must be made across all levels to increase RC signal unit deployability and readiness.

In order to increase RC readiness, which became an issue with the combat roundout brigades during Desert Storm, Forces Command is spearheading an initiative for the Army called Bold Shift.³⁰ Although its initial emphasis will be on the combat roundout and roundup brigades, the concept will eventually apply to the combat support RC signal battalions. The idea is to increase and solidify the links of the RC units to their CAPSTONE commander and to focus training at individual, team and company level. Also, a part of the program will be an Emergency Deployment Readiness Exercise (EDRE) to annually assess unit readiness to deploy.³¹ The EDRE team would be composed of AC and RC personnel who would evaluate and declare a unit combat ready. The goal is to increase readiness at the basic building block level - individual, team and company. Then when a unit is mobilized it will be clear what training remains to be accomplished prior to deployment.

Although it appears that Bold Shift ignores battalion level training, it really doesn't. It is still envisioned that AT would be a collective evaluation of the battalion's ability to perform its mission. Furthermore, a way to enhance RC signal battalion level training would be to deploy tactical satellite assets from the CAPSTONE corps signal brigade to the RC location during corps CPXs or FTXs in order to tie in RC signal nodes which would provide collective network management training. In addition, Mobile Training Teams will still play a major role in assisting RC units train.

Clearly, as Bold Shift shows, the senior leadership of the Army is dedicated to the Total Force concept. In addition to discussing Bold Shift, in an address to the 113th General Conference of the National Guard Association of the United States, 4 September 1991, General Sullivan spelled out his concept of how we must strengthen the Total Army.

First we must promote mutual understanding among the components of the Total Army. Second, we will strive to improve the integration of active and reserve forces by focusing on those systems that inhibit our working together - in particular, the personnel, pay, maintenance and supply systems. We will increase and solidify the links of the brigade to the active divisions to which it is assigned - to the CAPSTONE commander, just as prescribed in our training doctrine found in FM 25-100. Finally, we must be prepared to man roundout brigades and early deploying units at a level above 100% of authorized strength to allow for the inevitable non-deployable soldiers at the time of mobilization.

SIGNAL BRIGADE ALTERNATIVES/RECOMMENDATIONS

Total FY 95 signal brigade force structure will be two AC signal brigades in Europe, one AC signal brigade in Korea, and three AC and three RC signal brigades in ConUS.

The ConUS based AC brigades, two ECB and one EAC, face the requirement to integrate RC signal battalions into the brigade. However, as previously concluded and supported by the lessons learned from the 212th Signal Battalion mobilization, this challenge can be met.

A more pressing challenge falls to the two RC EAC signal brigades which are totally RC. As previously mentioned, these brigades face unique challenges given the wide dispersion of their battalions. What reduces the challenge somewhat is the fact that these brigades will probably be late deployers, thereby allowing a long train-up period prior to deployment, provided the decision to mobilize them is timely. The recommendation would be to fully integrate the brigade and its battalions into the Bold Shift program. Additionally, special consideration should be given to augmenting these signal brigades with enough tactical satellite terminals to allow brigade communications exercises from home stations.

Equally difficult is the challenge faced by the RC 142d Signal Brigade which is the I Corps signal brigade. This brigade is entirely RC except for one AC signal battalion stationed at Fort Lewis, Washington. The brigade's mission is to provide critical C2 communications to I Corps warfighters, who would

deploy to the Pacific theater of operations should conflict in that region begin.

The recommendation for this brigade would be to include it in the Bold Shift program. Furthermore, full-time manning should be increased, in particular, for those positions where critical technical skills are required such as the technical control section of the brigade S-3. Again, tactical satellite terminals should be provided to allow the brigade the ability to conduct brigade-wide communications training. This capability becomes even more necessary once the brigade converts to MSE, which will significantly change how the brigade technically controls its MSE communications nodes.

THEATER SIGNAL COMMAND ALTERNATIVES/RECOMMENDATIONS

Force structure in 1995 calls for one AC TSC in Europe and two RC TSCs in ConUS. The RC TSCs first requirement is to deploy a small communications network planning cell (8 - 10 soldiers) with the theater ground component commander's staff element. Therefore, the TSC must maintain a full-time nucleus of highly skilled planners who possess technical expertise necessary to integrate a great variety of communication assets in support of a joint or combined operation. The idea would be to fully integrate this full-time planning cell into the theater ground component commander's headquarters so that lasting personal relationships are developed and planning accomplished at the onset of a conflict.

Secondly, the RC TSC must be able to deploy an operations cell of approximately 40 soldiers and their equipment to execute the theater communications plan and provide technical control of the network once it is installed. This cell would be a fly away capability designed to reach the theater within 30 days. The recommendation is that this cell be manned full-time at a 50% level. Also, each RC TSC should be equipped with a tactical satellite capability that would facilitate large worldwide communications training exercises. Such training would keep the full-time soldiers well trained, plus provide realistic training opportunities for the RC soldiers.

Again, it is recommended that the RC TSCs be fully integrated into an evaluation program such as Bold Shift. Particular emphasis should be placed on the cell's equipment readiness and their ability to plan and control a large communications network.

CONCLUSION

As we reshape the force of the future it is imperative that the AC fully understand the overall linkage that the RC provides between the people of our nation and its Army. After all, the lack of this linkage was one of the primary causes of the Vietnam debacle. Now, over 15 years later, it is clear the RC provided
33 this critical linkage during Desert Shield/Storm.

The Desert Shield/Storm experience clearly demonstrated that the Total Force Policy does work, particularly in the CS and CSS arena. It is time now to strengthen the Total Force Policy and

for the AC to get serious about increasing the readiness of their CAPSTONE units. As the Congress decides the end strength of the Army through the budget appropriations process, more and more reliance will be placed on the RC. Therefore, it is only prudent to ensure that RC forces are trained and ready.

The time has come to lay aside the emotional issues and conflicts between the AC and RC and to develop a force structure that is logical and able to meet future threats to US interest anywhere in the world. Our national security depends on it.

From the signal corps perspective, RC integration is workable. However, at corps and above, approximately 50% of the Army's total communications capability will reside in the RC. Here is where innovative training, increased full-time manning and full incorporation of initiatives such as Bold Shift must occur in order to increase the RC signal units readiness and full integration.

When you read accounts from Desert Storm, such as that concerning 142d Field Artillery Brigade, Arkansas National Guard, and the following account by Secretary of Defense Richard B. Cheney, it is clear that the Total Force Policy can work.

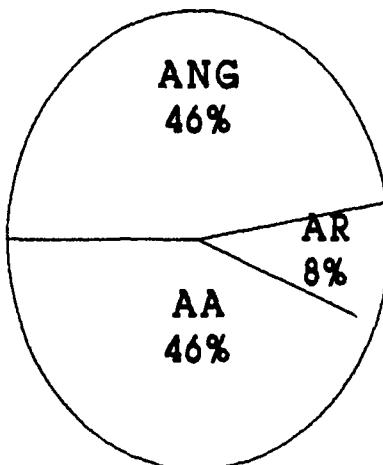
Consider one of my favorite stories, about the Marines of Company B of the 4th Tank Battalion. They're combat reservists from Yakima, Washington, not active duty personnel. They were activated last December and went into battle with their Abrams tanks when ground operations began into Kuwait on the 24th of February. Before dawn, moving north inside Kuwait, Company B discovered a large formation of Iraqi tanks. They saw some of the top-line T-72 tanks heading straight toward them through a large group of dug-in Iraqi armor. All told, the Marine company with 13 tanks faced 35 oncoming Iraqi tanks, outnumbered nearly three to one. But when

the encounter was over, the Marine reservists had destroyed or stopped 34 of the 35 enemy tanks. In fact, in a total of four engagements in four days, Company B stopped 59 Iraqi tanks, 30 of them top-line T-72s. What makes it all the more impressive is that Company B had never used those Abrams tanks before they arrived in the desert. That was their first exposure to the new equipment. And they trained on it, acquired the capability to operate it, and then performed superbly in combat.

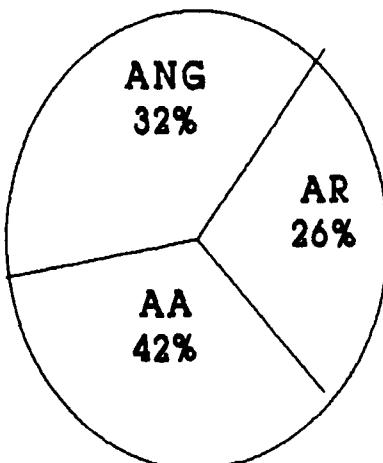
34

TOTAL ARMY STRUCTURE

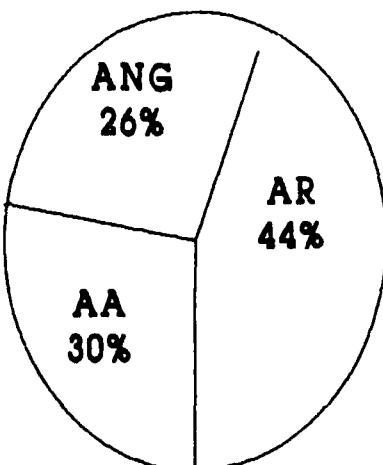
COMBAT



COMBAT SUPPORT



COMBAT SERVICE SUPPORT



Legend:

ANG • Army National Guard

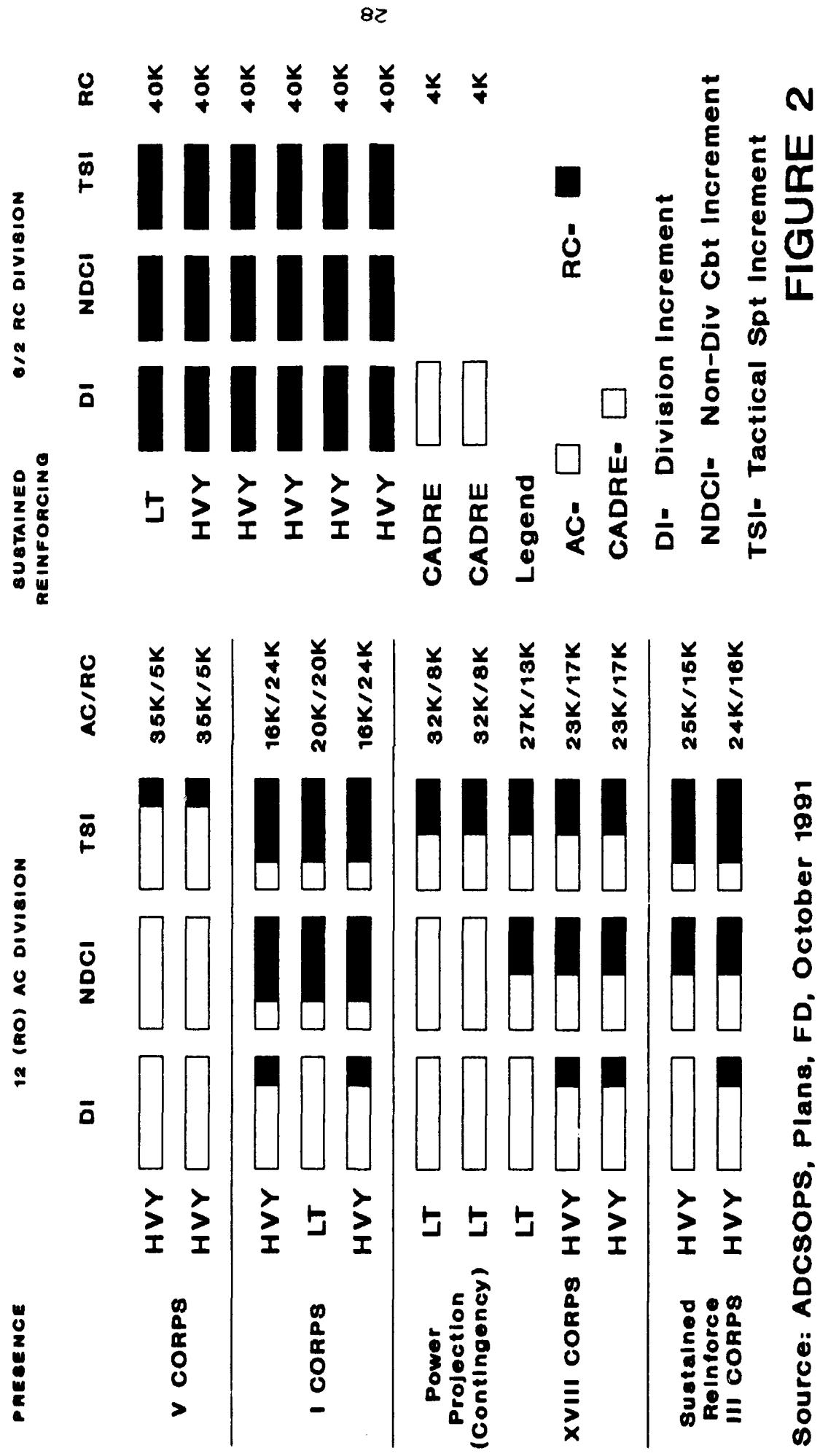
AA • Active Army

AR • Army Reserve

SOURCE: Army Reserve
Special Report - 1991

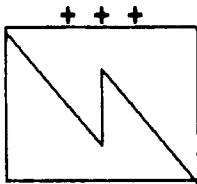
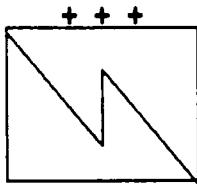
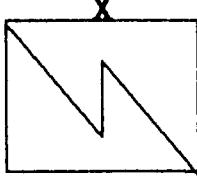
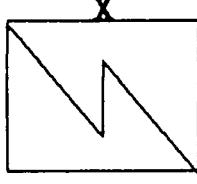
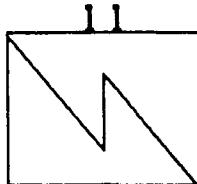
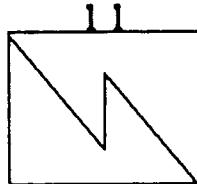
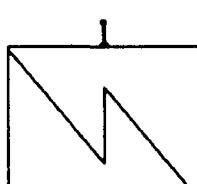
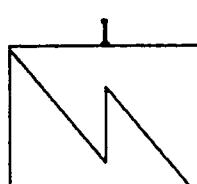
FIGURE 1

535K AC/55OK RC



Source: ADCSOPS, Plans, FD, October 1991

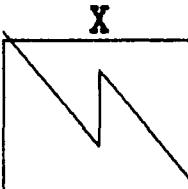
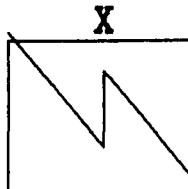
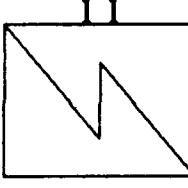
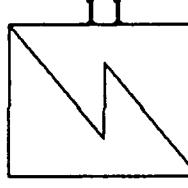
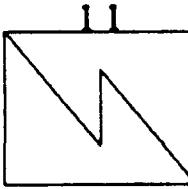
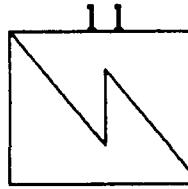
EAC TAA-99 TACTICAL SIGNAL UNITS

	Active	Reserve	Total
Theater Sig Cmd	 (1)	 (2)	3
Signal Brigade	 (3)	 (2)	5
Signal Battalion	 (7)	 (8)	15
Signal Company	 (14)	 (16)	30

Source: US Army Signal Center, November 1991

FIGURE 3

ECB TAA-99 TACTICAL SIGNAL UNITS

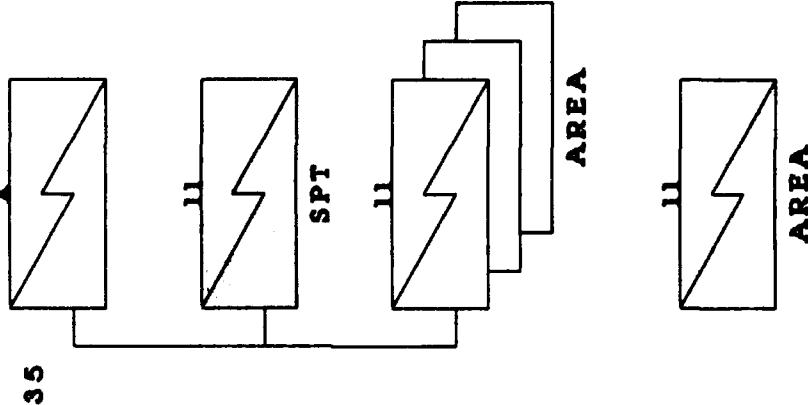
	Active	Reserve	Total
Corps Signal Brigade	 X (3)	 X (1)	4
Corps Area/ Support Signal Battalion	 11 (8)	 11 (9)	17
Division Signal Battalion	 11 (13)	 11 (8)	21

Source: US Army Signal Center, November 1991

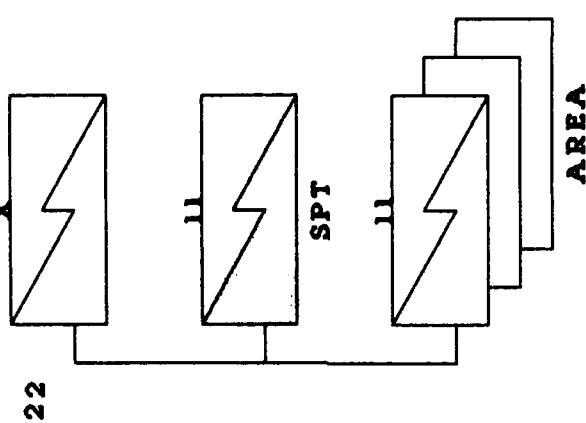
FIGURE 4

CORPS SIGNAL BRIGADE TAA-99

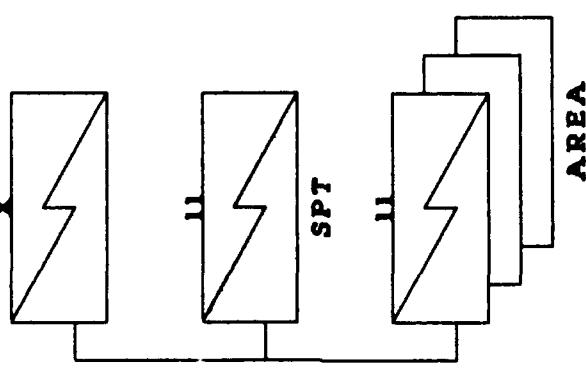
XVIII CORPS



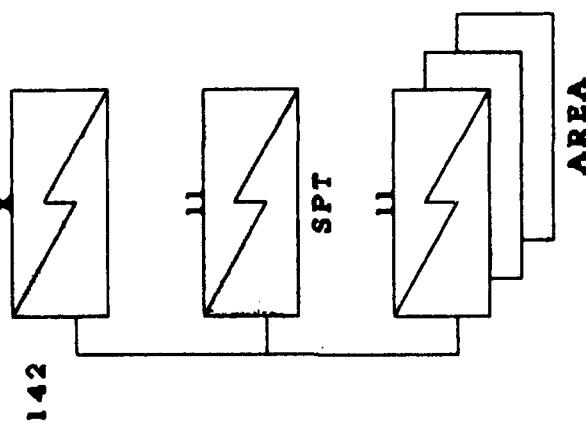
V CORPS



III CORPS



I CORPS



RC - (9)

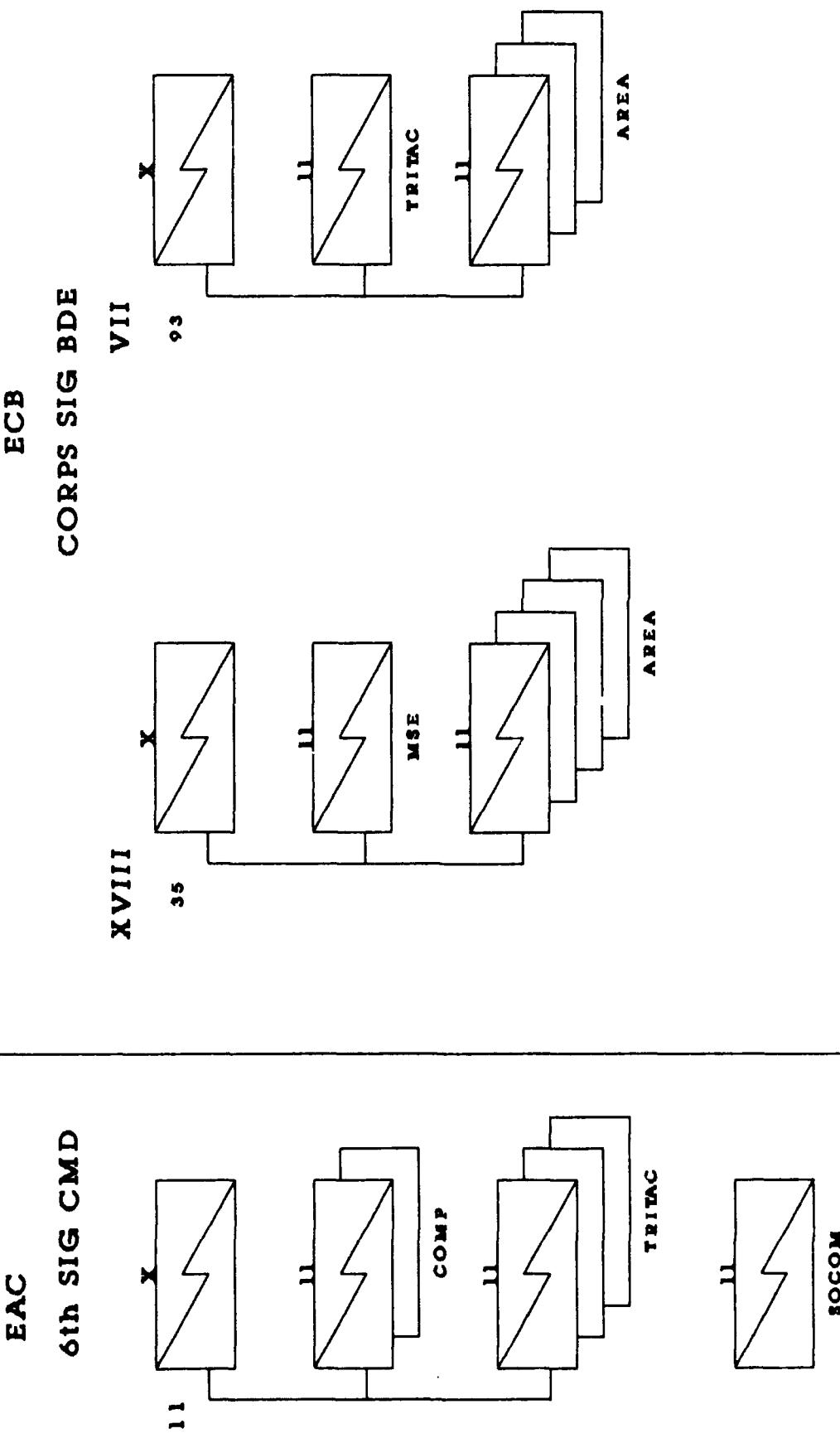
AC - (8)

Total - (17)

Source: US Army Signal Center, November 1991

FIGURE 5

DESERT STORM COMMUNICATIONS STRUCTURE



Source: US Army Signal Center, November 1991

FIGURE 6

ENDNOTES

1. Martin Binkin, William W. Kaufmann, "US Army Guard and Reserve, (1989), 20-21.
2. IBID., 29.
3. IBID., 34.
4. IBID., 36.
5. William F. Ward, MG, Army Reserve Special Report 1991, 13-15.
6. Richard B. Crossland, James T. Currie, Twice the Citizen: A History of the US Army Reserves, 1908-1983, (1984), 211-212.
7. Binkin and Kaufmann, 59.
8. Ward, 8.
9. Army National Guard After Action Report, Operation Desert Shield Operation Desert Storm 2 August 1990 - 28 February 1991, (28 June 1991), 5.
10. IBID., 1.
11. IBID., 2, 3, 21.
12. John O. Marsh, Jr., The Officer, (February 1990), 24.
13. Richard B. Cheney, Annual Report to the President and the Congress, (January 1991).
14. Charles E. Heller, COL, "The New Military Strategy and its Impact on the Reserve Components", Strategic Studies Institute, US Army War College, (7 December 1991), 16.
15. "Pentagon Prepares to Trim Guard, Reserves," The Sentinel, Carlisle, 26 March 1992, A1.
16. Robert L. Cooch, COL, Jack R. Fox, LTC, Military Studies Project, (March 1992).
17. The President, National Security Strategy of the United States, (August 1991), 28.
18. Jerome H. Granrud, MG, Briefing: "Force Development", USAWC Class 92, (September 1991).

19. Discussion with Mr. Pete Kidd, US Army Signal Center, Fort Gordon, Georgia, (November 1991).
20. US Army Central Command, Lessons Learned Desert Shield/Storm, 1991.
21. US Army Combined Arms Command, Desert Shield/Desert Storm Lessons Learned, General Officer Steering Committee Executive Summary, (13 August 1991).
22. Discussion with Gilbert S. McManus, CPT, US Army Signal Center, Fort Gordon, Georgia, (November 1991).
23. IBID.
24. Steve C. Rucker, LTC, ARNG, After Action Report, Mobilization of the 212th Signal Battalion, (18 March 1991), 1.
25. Michael W. Ackerman, COL, After Action Report, Mobilization and Demobilization of the 212th Signal Battalion, (25 March 1991).
26. Discussion with Thom E. Tuckey, LTC, US Army War College, Carlisle Barracks, Pennsylvania, (11 February 1992).
27. Rucker, 4.
28. Gordon R. Sullivan, General, National Guard, (January 1992), 76.
29. Discussion with Gilbert S. McManus, CPT, US Army Signal Center, Fort Gordon, Georgia, (November 1991)
30. IBID., 77-80.
31. CDR FORSCOM MSG DTG 152239Z Oct 91, Subject: Reserve Components Enhancements (Bold Shift) Milestones and Actions.
32. Gordon R. Sullivan, General, Address to the 113th General Conference of the National Guard Association of the United States, Honolulu, Hawaii, 4 September 1991, 5-8.
33. IBID., 1.
34. Richard B. Cheney Secretary of Defense, ARMOR, (September - October 1991), 15.

BIBLIOGRAPHY

- Ackerman, Michael W., COL. After Action Report, Mobilization and Demobilization of the 212th Signal Battalion. Fort Hood: 25 March 1991.
- Army National Guard After Action Report: Operation Desert Shield, Operation Desert Storm, 2 August 1990 - 28 February 1991. National Guard Bureau, Virginia: 28 June 1991.
- Binkin, Martin, and Kaufmann, William W., US Army Guard and Reserves: Rhetoric, Realities, Risks. Washington: The Brookings Institute, 1989.
- Cheney, Richard B., Secretary of Defense, Annual Report to the President and the Congress. Washington: January 1991.
- Cheney, Richard B., Secretary of Defense, "Bravo Company Goes to War," Armor, September - October 1991, pp 15.
- Commander, Forces Command, MSG DTG 152239Z October 1991, "Reserve Components Enhancements (Bold Shift) Milestones and Actions."
- Cooch, Robert L., COL, and Fox, Jack R., LTC, Educating the Active Component on the National Guard. Military Studies Project, Carlisle Barracks, March 1992, Annex A.
- Crossland, Richard B., and Currie, James T., Twice the Citizen: A History of the US Army Reserve. Washington: Office of the Chief, Army Reserve, 1984.
- Granrud, Jerome H., MG, Briefing: "Force Development", Carlisle Barracks, September 1991.
- Heller, Charles E., The New Military Strategy and its Impact on the Reserve Components. Strategic Studies Institute, Carlisle Barracks, 7 December 1991.
- Kidd, Pete, US Army Signal Center. Personal Discussion. Fort Gordon: November 1991.
- Marsh, John O., Jr., "Reserve Forces Better Prepared Than Ever Before", The Officer, February 1990, pp 24.
- McManus, Gilbert S., CPT, US Army Signal Center. Personal Discussion. Fort Gordon: November 1991.
- "Pentagon Prepares to Trim Guards, Reserves," Editorial. The Sentinel, Carlisle, 26 March 1992, pg A1.

Rucker, Steve C., LTC, After Action Report, Mobilization of the 212th Signal Battalion. Little Rock, Arkansas: 18 March 1991.

Sullivan, Gordon R., General, "General Gordon Sullivan Discusses America's Army", National Guard, January 1992, pp 76-80.

Sullivan, Gordon R., General. Address to the 113th General Conference of the National Guard Association of the United States. Hawaii: 4 September 1991.

Tuckey, Thom E., LTC. Student US Army War College and former Commander, 50th Signal Battalion, Fort Bragg. Personal Discussion. Carlisle Barracks: 11 February 1992.

US Army Central Command, Lessons Learned Desert Shield/Storm, MacDill Air Force Base: 1991.

US Army Combined Arms Command, Desert Shield/Storm Lessons Learned General Officer Steering Committee. Executive Summary. Fort Leavenworth: 13 August 1991.

US President, National Security Strategy of the United States. Washington: August 1991.

Ward, William F., MG, Army Reserve Special Report, 1991: Statement before the Committees and Subcommittees of the United States Senate and the House of Representatives, First Session, 102d Congress, Washington: 1991.